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## DECIBION



## THE COMPTROLLER GENERAL OF THE UNITED STATES WASHINGTON, D.C. 20548

FILE: B-202966

DATE: November 24, 1981

MATTER OF: . TWI Incorporated

DIGEST:

When procuring agency's best estimate involves unknown factors, so there are no realistic safeguards to insure that mathematically unbalanced bid which is evaluated as low actually results in lowest cost to Government, bid should be rejected under solicitation clause warning against material unbalancing.

TWI Incorporated protests the proposed award of a contract for repair of watertight closures aboard ships to B&N Marine Repairs, Inc., under a solicitation issued by the Naval Supply Center, Norfolk, Virginia. TWI contends that the bid submitted by B&M is materially unbalanced and therefore should be rejected. We sustain the protest.

The invitation for bids, No. N00189-81-B-0037, was set aside for small business. It required submission of unit and extended prices for 48 line items representing a mix of labor and materials, as well as prices for an equal number of items for an option year. Bids were to be evaluated by adding prices for estimated quantities of all items for both years, with an award to the qualified bidder with the lowest total price.

The solicitation specifically listed two grounds on which any bid might be rejected: (1) lack of facilities within a geographic radius of 50 miles and (2) material unbalancing of prices as applied to basic and option quantities. An unbalanced bid was defined as one based on prices significantly less than cost for some work and significantly overstated for other work.

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Bids were opened on April 15, 1981, and B&M, the incumbent contractor, was the apparent low bidder with an evaluated price of \$599,730. TWI was second-low at \$737,794. TWI argues that B&M's bid is mathematically unbalanced because its prices for the first 10 line items are overstated, equaling 74 percent of the total bid. Nine of these items cover removal, repair, and replacement of different types of closures (watertight doors, scuttles, and hatches). According to TWI, the items are labor-intensive but do not require manhours or skill levels which would justify B&M's high prices. The remaining items, TWI states, primarily cover materials which B&M has bid at less than cost.

In addition, TWI contends that B&M's bid is materially unbalanced in that it will not necessarily result in the lowest cost to the Government, since this is a requirements contract and payment will be made on the basis of actual orders, not estimated quantities. In this regard, TWIpoints out that estimated quantities are large for the labor-intensive items on which B&M has bid low, and smaller for the items on which it has bid high. TWI examined delivery orders issued to B&M between June 1980 and May 1981 and found that many of the materials listed as line items in this solicitation had never been ordered. If the contracting officer had reviewed the delivery orders, TWI argues, some quantities would have been decreased or the items TWI has prepared an exhibit which purports to show that its own bid price would be 23 percent lower than B&M's for a contract based on items actually ordered by the Navy during the current year.

After receiving the protest, the Navy requested and obtained verification of B&M's bid prices. The firm states that while performing the current contract, it discovered that the labor-intensive items required more work than anticipated, thus justifying higher hid prices in response to this new solicitation than it had been charging under the existing contract. In addition, B&M now states that it must pay higher than prevailing wages to obtain skilled labor, but that it has found economical sources and bought materials in quantity, enabling it to bid lower prices for material-intensive items. In light of this explanation, the Navy concludes that B&M's bid is not mathematically unbalanced, but states that even if it is, it is not materially unbalanced.

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We are not persuaded that B&M's bid is mathematically balanced. The record does not include any Government estimates for the various items listed in the solicitation, and the Navy appears simply to have accepted at face value B&M's statements justifying its pricing scheme. However, from a breakdown of various items according to the mix of skills and estimated number of hours which it will take to perform specified tasks, provided by TWI, and a comparison of B&M's prices with those of other bidders, it appears that B&M has bid so that some items carry more and others carry less than their share of actual costs.

One example, cited by TWI, is the difference between B&M's prices for repair of closures and for repair of knife edges on board ship. According to TWI, removal and replacement (separate items) of different types of closures will require only unskilled labor to get the closures off the ship, into the contractor's shop, and back again. Except for the use of rigging to remove large closures from below decks (covered by an item for crane services), these would not be expensive or time-consuming tasks, TWI asserts; skilled labor will be needed only for straightening, welding, and other repairs, and for aligning and chalk-testing the closures during replacement. The vast difference between B&M's bid prices and TWI's bid prices for repair of closures is indicated by the rollowing chart:

ITEM	QUANTITY	B&M		rwi	
		Unit	Extended	Unit	Extended
1AB	300	\$250	\$75,000	\$48	\$14,400
2AB	125	150	18,750	36	4,500
ЗАВ	75	200	15,000	44	3,300
TOTAL			\$108,750		\$22,200

With respect to the knife edge repairs, TWI asserts that the contractor must bring a welding machine on board ship and furnish stainless steel rods; these repairs also require a more highly skilled mechanic than the closure

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repairs, since Navy standards for stainless steel welding are more stringent than those for the carbon steel and aluminum welding required for closure repairs. B&M's and TWI's prices for repair of knife edges were as follows:

ITEM	QUANTITY	B&M		TWI	
	•	Unit	Extended	Unit	Extended
0014AA	1,200 linear ft.	\$.50/ ft.	\$600	\$10/ ft.	\$12,000

TWI argues that B&M cannot justify its high prices for closure repairs on the basis of the need for skilled labor while ignoring the level of skill needed to perform the knife edge repairs.

Carrying TWI's analysis a step further, we have reviewed the prices of the four other bidders for repair of closures. Three of these bidders submitted unit prices ranging from \$33.75 to \$60 for item 1AB, from \$22.50 to \$60 for item 2AB, and from \$33.25 to \$110 for item 3AB. (The remaining bidder was considerably higher and also may have been engaged in unbalancing.) Thus, TWI's unit prices for these labor-intensive items were consistent with those of the majority of other bidders, while B&M's were not. And while B&M states that its prices allow for variations in size, configuration, and location of the closures aboard ship, the specifications include a maximum size for each closure, so that all bidders should have allowed for such variations in setting their prices.

Moreover, we question whether B&M's statement that it must pay higher than prevailing wages to obtain skilled labor since any contractor must have employees meeting the qualifications listed in the solicitation for mechanics, painters, welders, and chippers. In addition, any contractor will be subject to the quality assurance procedures outlined in the solicitation and must submit to Navy inspection at designated check points.

As for B&M's prices for materials, a comparison with other bidders shows, for example that for 100 of each of the following--dog wrenches (item 8AA), dog wrench stowages (item 9AA), and toggle pins and wire rope (item 10AA)--B&M bid \$1, \$2, and \$3 respectively, while TWI bid \$8.50, \$7.50, and \$10. The four remaining bidders submitted unit prices ranging from \$6 to \$27 for item 8AA, from \$8 to \$22 for item 9AA, and from \$10 to \$24 for item 10AA. Thus, B&M's prices for these materials bear little relation to those

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of other hidders, and we question whether either economical sources or quantity buying can account for the disparity.

An analysis of B&M's bid prices according to estimated quantities also confirms that its bid is mathematically unbalanced. For installation of rubber gaskets (item 12AC), for an estimated 6,500 linear feet, B&M bid \$1 a foot, \$6,500 extended; TWI bid \$3.25 a foot, \$21,125 extended. Other unit prices ranged from \$4 to \$22 a foot, or from \$26,000 to \$143,000 extended. On another high-quantity item--cleaning, priming and painting entire watertight closures (item 30AA)--for an estimated 17,000 square feet, B&M bid \$.30 a square foot, \$5,100 extended; TWI bid \$.90 a square foot, \$15,300 extended. Other bidders ranged from \$1.40 to \$35 a square foot, or from \$23,800 to \$585,000 extended.

In our opinion, these figures clearly indicate that B&M has submitted a mathematically unbalanced bid.

This unbalancing is not, of itself, grounds for rejection of Bam's bid. See Global Graphics, Inc., 54 Comp. Gen. 84 (1974), 74-2 GPD 73. Our Office recognizes two aspects of unbalanced bidding: mathematical and material. See Mobilease Corporation, 54 Comp. Gen. 242 (1974), 74-2 CPD 185; Oswald Brothers Enterprises, Incorporated, B-180676, May 9, 1974, 74-1 CPD 238. The first aspect involves a determination as to whether each item or, in the case of options, each year carries its share of the cost of work plus profit; the second requires a determination as to whether there is a substantial chance that acceptance of a bid in which prices are disproportionate will result in the lowest cost to the Government. Id.

These distinctions are somewhat artificial and, in any event, do not provide a rule to be applied in all cases without a careful review of the factors underlying the unbalanced bid and the effect of acceptance of such a bid upon the competitive system. See, for example, Edward B. Friel, Inc., 55 Comp. Gen. 231 (1975), 75-2 CPD 164.

The essential question in this case is whether the Navy's estimates are sufficiently accurate to permit a determination that B&N's bid actually is lowest. We do not believe that they are. First, the record indicates that this is only the second year that this work is to be performed under a single, indefinite quantity-type contract, so that the "historical" period on which the Navy's estimates are based is only one year. Second, the estimates

include a factor for "any unforeseen growth." In a supplemental report to our Office, the Navy states that due to demands on surface forces, it is not possible to program ships in advance for this type of repair work or to anticipate with any degree of accuracy how many ships may require various quantities of individual line !tems. This statement suggests that the Navy's estimates cannot be relied upon to overcome the effects of a mathematically unbalanced bid.

We have found that B&M's hid is mathematically unbalanced. We believe that it may also be materially unbalanced, since--although it has been evaluated as low--it may not actually result in the lowest cost to the Government, Under these gircumstances, we believe the bid must be rejected.

The solicitation specifically warned bidders that a materially unbalanced bid might be considered nonresponsive. Moreovel, the application of the unbalanced bidding clause has not been limited, as the Navy argues, to unbalancing between base and option years. See Inland Service Corporation, B-198925, October 17, 1980, 80-2 CPD 292. We would apply it here, and therefore recommend that award be made to the next-lowest evaluated bidder who has submitted a mathematically balanced bid.

By letter of today, we are advising the Secretary of the Navy of our views. The protest is sustained.